

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-010759**Date Inspected:** 14-Dec-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wang Chung Ging, Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG/TOWER**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

TRIAL ASSEMBLY

This QA Inspector randomly observed the following work in progress.

OBG SEGMENT 6BE

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 220069 performing Flux Cored Arc Welding process for the weld SEG030C-030 located on PCMK the weld between floor beam flange and top flange of longitudinal diaphragm at intersection of W4 and PP41. ZPMC QC Mr. Song Hui monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-2232-TC-U4B-F.

OBG SEGMENT 5EAST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 062092 performing Shielded Metal Arc Welding process for the weld OBE5-003 located on PCMK OBG segment 5east. ZPMC QC Mr. Shen Jian Bo monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-4G (4F) Repair-1.

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OBG SEGMENT 6WEST

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 048659 performing Shielded Metal Arc Welding process for the weld DP623-001-15 located on PCMK U rib hold back area at the splice weld between 6AW and 6BW. ZPMC QC Mr. Zhang Hai Tao monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-4114-1.

BAY # 10

This QA Inspector randomly observed the following work in progress.

NORTH TOWER LIFT #4

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 052930 performing Shielded Metal Arc Welding process for the weld NSTL4-3C/L-72 located on PCMK 119m Double diaphragm. ZPMC QC Mr. Wang Chung Ging monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-B-T-3312-TC-P4.

SOUTH TOWER LIFT #4

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 040343 performing Flux Cored Arc Welding process for the weld SSTL4-1B/L-3B located on PCMK Corner weld between skin A and skin E of south tower lift 4. ZPMC QC Mr. Sha Shi monitoring this welding. The welding variables recorded by QC appeared to comply with the WPS-345-FCAW-2G (2F) Repair.

OBSERVATION

HEAVY DOCK

OBG SEGMENT 3EAST

This Quality Assurance (QA) Inspector observed ZPMC personnel using a floating crane to move OBG segment 3East from heavy dock to boat. The move appeared to progress smoothly and no problems occurred during this operation.

TRIAL ASSEMBLY YARD

OBG SEGMENT 6BE

This Quality Assurance (QA) Inspector observed ZPMC personnel performing match drilling on U rib in OBG segment 6BE at PP41.

OBG SEGMENT 6BW

During a random in-process visual inspection of OBG segment 6BW, This Caltrans Quality Assurance (QA) Inspector observed an excessive root joint opening of a complete joint penetration (CJP) weld between the Floor Beam (FB) Flange and Top Flange of the Longitudinal Diaphragm (LD) located at PP41 and W4. This Quality Assurance (QA) Inspector informed to ZPMC CWI (Li Yang) and incident report is going to be issued to document excessive root gap.

Additional information identifying this non-conformance is listed below.

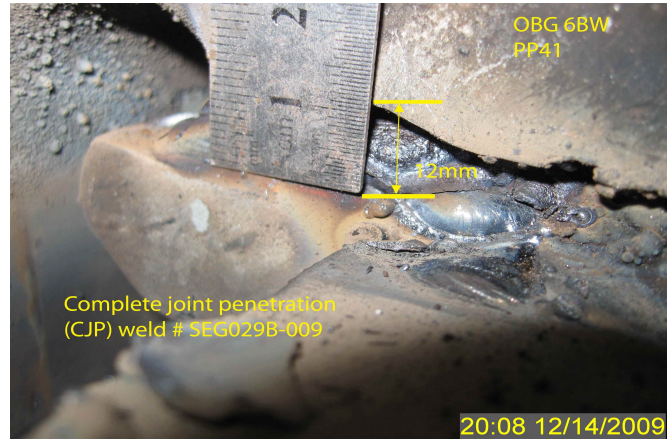
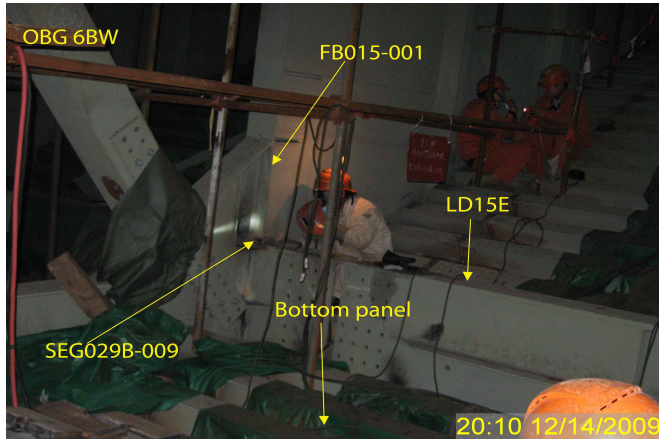
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- 1) The affected weld is identified as: SEG029B-009
- 2) This weld is a Complete Joint Penetration (CJP)
- 3) The Floor Beam Flange is identified as: FB015-001
- 4) The Top Flange of the Longitudinal Diaphragm is identified as: LD15E

For further information, please see the attached pictures below. Incident report was generated.

Unless otherwise noted, all work observed on this dated appeared to generally comply with applicable contract documents.



Summary of Conversations:

See above

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang +(86) 150.0042.2372, who represents the Office of Structural Materials for your project.

Inspected By: Utekar,Shrikant

Quality Assurance Inspector

Reviewed By: Dawson,Paul

QA Reviewer